



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,502	04/03/2006	Alessandro Spaggiari	27331U	2380

20529 7590 02/02/2010
THE NATH LAW GROUP
112 South West Street
Alexandria, VA 22314

EXAMINER

KOSANOVIC, HELENA

ART UNIT	PAPER NUMBER
----------	--------------

3749

MAIL DATE	DELIVERY MODE
-----------	---------------

02/02/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,502	Applicant(s) SPAGGIARI, ALESSANDRO	
	Examiner HELENA KOSANOVIC	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show “the air outlet openings 11 are arranged in the circle which lies in the plane at right angle to the axis of the rotation (8)” (claims 9 -14), “the elongated openingincreases transversally in size between its longitudinal ends” (claim 17); “the elongated opening having a trapezoidal or triangular shape in cross section” (claim 18) as well as “a layer of sound deadening material” (claims 28-30) as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

Art Unit: 3749

informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Regarding claim 27, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
3. Regarding claim 30, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
4. Claim 1 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear how the housing 3 defines a closed chamber 9, when said chamber has an opening 10 and at least one outlet 11. Therefore it is not closed chamber.
5. Claim 5 recites the limitation "the motor" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-7, 15-16, 19, 21-23 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Hawkins 4,658,707.

Hawkins teaches the invention as claimed:

Regarding claim 1, a motor vehicle ventilating device (fig. 3) comprising a housing (24, 26, fig. 3), fastening means (30, 53b, fig. 3) for attaching the housing to the roof of the cabin of a motor vehicle and a fan (34, fig. 3) positioned in the housing;

the housing defining a closed chamber (inside the housing) equipped with an air inlet opening (where element 38 is located, fig. 3) and at least one air outlet opening (openings where element 56 is located, fig. 3) for delivering to the vehicle cabin through the outlet opening the air that is drawn into the housing by the fan through the inlet opening; the device being characterized in that the housing is defined by two half-shells ((24, 40), (28, 26), fig. 3) joined to each other in airtight manner, the first half-shell (24, 40) being designed to be attached to the cabin roof and the second half-shell (28, 26) having the air inlet and outlet openings made in it; the fan being an axial fan (fig. 3).

Regarding claim 2, the air outlet opening is positioned at the side of the impeller in a radial direction of the impeller itself (fig. 3).

Regarding claim 3, the air outlet opening is positioned at the side of the impeller in a skew direction of the impeller itself (fig. 3).

Regarding claim 4, the air outlet opening is positioned in the same plane as the impeller in a direction parallel to but offset from the impeller itself (fig. 3).

Regarding claim 5, the first half-shell has made in it a seat 44 (fig. 3) for mounting the motor (36, fig.3) of the fan impeller.

Regarding claim 6, the second half-shell is equipped with mounting elements (53a, fig. 3) for supporting a seat in which the motor of the fan impeller can be mounted.

Regarding claim 7, diverting means (slope where element 56 is located. Fig. 3) surrounding the axial outlet of the impeller to change the direction of the forced air flow from the impeller by at least 90°

Regarding claim 15, the diverting means comprise a substantially cylindrical cap (inside 28, 86 on both side, fig.3) in which the impeller is housed, the cap having a central axis that coincides with the central axis of rotation of the impeller (fig. 3), a bottom wall (24, fig. 3) facing the axial outlet of the impeller and a side wall (28, fig. 3) with an elongated opening (56, fig. 3) facing the air outlet openings in their entirety; the air outlet openings as a whole describing an arc around the opening between two longitudinal ends of the opening itself.

Regarding claim 16, the bottom wall of the cap (28) is defined by the first half-shell (fig. 3) and the side wall of the cap is defined entirely or mainly by the second half-shell (fig. 3).

Regarding claim 19, a safety grill (50a, figs. 2-3) placed over the air inlet opening.

Regarding claim 21, the air inlet opening lies in a plane at right angles to the axis of rotation of the impeller (fig. 3).

Regarding claim 22, the air outlet opening lies in a plane that makes a predetermined obtuse angle with the plane in which the air inlet opening lies (fig. 3).

Regarding claim 23 the fastening means are positioned and designed to attach the housing to the vehicle cabin roof in a predetermined position such that the air inlet opening lies in a substantially horizontal plane (fig. 3).

Regarding claim 27 the air inlet opening comprises a layer of protective material 50a (figs. 2-3) designed to prevent small objects and other foreign matter, such as hair, from being sucked into it.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 8-10, 12-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins 4,658,707 in view of Vecchi 6,250,373.

Hawkins teaches the invention as discussed above including the openings that are arranged in the circle around the axis of the impeller, but is silent about the housing having a plurality of openings, that are arranged in the circle in variety of angles and in a plane that is orthogonal to said axis.

Art Unit: 3749

Regarding the claim limitation about the arc having different length (claims 12-14), at the time the invention was made it would have been obvious matter of design choice to a person of ordinary skill in the art to have arc of different angle instead of arc having an angle of whole circle (as main reference teaches), because applicant has not disclosed that the specific length of the arc provides an advantage is used for particular purpose or solves a stated problem. One of ordinary skill in the art would have expected the Applicant's invention to perform equally well with full circle arc or with arc of 180 degrees or 120 degrees or 60 degrees, because they all perform the function of transferring the air equally well.

Vecchi teaches:

Regarding claim 8, the housing (10, fig. 2) has a plurality of air outlet openings (16, 18, 20, 22, fig. 2).

Regarding claim 9, the air outlet openings are arranged in a plane which lies in a plane at right angles to the axis of rotation of the impeller (impeller of the Hawkins reference is in the middle of the housing 10 on fig. 2) and whose centre coincides with the axis itself (fig. 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the Hawkins full circle outlets with the Vecchi plurality of outlets arranged "in the circle" and in the same plane as inlet opening because the substitution of one known element for another would have yielded predictable results of transferring the air through the device.

Art Unit: 3749

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins 4,658,707 in view of Vecchi 6,250,373 and further in view of Ninomiya 6,723,146

Hawkins in view of Vecchi teaches the invention as discussed above but is silent about the circular arch corresponds to the transversal extension of the front and/or back seats of the vehicle in which the ventilating device is installed.

Ninomiya teaches that the openings correspond to the transversal extension of the front or back seats of the vehicle in which the ventilating device is installed (fig. 9A).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have the Hawkins in view of Vecchi invention modified with the Ninomiya device orientation in order to provide better circulation of air in one part of the vehicle if needed.

9. Claims 17-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins 4,658,707.

Hawkins teaches the invention as discussed above but is silent about that elongated opening increases its size between its longitudinal ends, and said opening has a trapezoidal or triangular shape.

Regarding the claim limitation about the shape of the elongated opening, at the time the invention was made it would have been obvious matter of design choice to a person of ordinary skill in the art to have rectangular opening instead of trapezoidal, triangular or opening that increases in its size between its end, because applicant has not disclosed that the specific shape provides an advantage is used for particular purpose or solves a stated problem. One of ordinary skill in the art would have expected

Art Unit: 3749

the Applicant's invention to perform equally well with rectangular or any other shape, because they perform the function of transferring the air equally well (MPEP 2144.04 IV B)

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins 4,658,707 in view of Roth 4,709,623

Hawkins teaches the invention as discussed above but is silent about the air outlets having a safety grill.

Roth teaches outlets 146 with safety grills 150 (fig. 2)

It would have been obvious to one of ordinary skill in the art at the time of the invention to have the Hawkins outlet modified with the Roth safety grill in order to control the air flowing through said outlets.

11. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins 4,658,707 in view of Matsubara JP 59202922

Hawkins teaches the invention as discussed above but is silent about the housing attached to the roof in a predetermined angle such that the inlet is inclined downwardly.

Matsubara teaches

Regarding claim 24, the fastening means (4) are positioned and designed to attach the housing (1, fig. 11) to the vehicle cabin roof in a predetermined position such that the air inlet opening (fig. 12) lies in a plane that is inclined downwardly, from the front to the back of the vehicle cabin (fig. 12).

Art Unit: 3749

It would have been obvious to one of ordinary skill in the art at the time of the invention to have the Hawkins invention modified with the Matsubara inclined fan opening in order to provide more air towards the passenger in the back seat, and thus provide ventilation in whole vehicle compartment evenly (Fig. 12).

12. Claims 25-26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins 4,658,707 in view of Snow 2004/0110459.

Hawkins teaches the invention as discussed above but is silent about the housing attached to the duct.

Snow teaches:

Regarding claim 25, an air conduit (20, fig. 1) in the form of a tubular extension connected to the air inlet opening (22, fig. 1) and having, in turn, an opening (24, fig. 1) positioned and oriented in such a way as to intercept the air flowing out of a vehicle climate control system (12, 14, fig. 1) in an open area of the vehicle cabin (fig. 1).

Regarding claim 26, a heating or cooling means 12 (fig. 1) consisting, for example, of heat exchangers built into the ventilating device and used to produce a flow of warm or cool air or a mixture of the two (fig. 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have the Hawkins invention modified with the Snow tubular duct in order to provide more air towards the passenger in the back seat, and thus provide conditioned air in whole vehicle compartment evenly (Fig. 1).

Art Unit: 3749

13. Claims 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hawkins 4,658,707 in view of Misu 6,662,891.

Hawkins teaches the invention as discussed above but is silent about the sound deadening material.

Misu teaches:

Regarding claim 28, the air inlet opening (110, fig. 9) comprises a layer of sound deadening material (119, fig. 9) having low resistance to air flow.

Regarding claim 29, that the air outlet opening or openings comprise a layer of sound deadening material having low resistance to air flow it is considered to be a duplication of part. However, the courts have held that duplication of parts for amplified effect does not distinguish over the prior art, unless a new and unexpected result is produced (*In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960), also MPEP 2144.04). In this case having another sound proofing cover 119 in the air outlet opening in order to further absorb the operating noise of the blower fan 31 is not unexpected result.

Regarding claim 30, the housing (14, 16, fig. 9) comprises a layer of sound-deadening material 130 consisting, for example, of open-cell polyester or polyurethane foam (col. 15, ll.49-54) .

It would have been obvious to one of ordinary skill in the art at the time of the invention to have the Hawkins invention modified with the Misu sound absorption foam in order to absorb the operating noise of the blower fan (col. 15, ll. 49-55)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HELENA KOSANOVIC whose telephone number is (571)272-9059. The examiner can normally be reached on 8:30-5:00, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve McAllister can be reached on 571-272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Helena Kosanovic/
Examiner, Art Unit 3749

013010
/Steven B. McAllister/
Supervisory Patent Examiner, Art Unit 3749